

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-13 and 15 are currently pending. Claims 1, 4, 7, and 10 have been amended; and Claim 14 has been canceled without prejudice by the present amendment. No new matter has been added.¹

In the outstanding Office Action, Claims 1-9 and 12-15 were rejected under 35 U.S.C. § 112, first paragraph, as lacking an enabling description; and Claims 1-15 were rejected under §103(a) as being unpatentable over Gorsuch et al. (U.S. Patent No. 6,388,999, hereafter “the ‘999 patent”) in view of Lodha et al. (U.S. Published Patent Application No. 2003/0223430, hereafter “the ‘430 publication”) and further in view of Benveniste (U.S. Published Patent Application No. 2002/0163933, hereafter “the ‘933 publication”).

In response to the 35 U.S.C. § 112, first paragraph, rejection of Claims 1-9 and 12-15, Claims 1, 4, and 7 have been amended to remove the features specifically identified as lacking enablement by the outstanding Office Action. Accordingly, Applicants respectfully submit that the rejection of Claims 1-9 and 12-15 under 35 U.S.C. § 112, first paragraph, has been overcome.

In response to the rejection of Claims 1-15 under 35 U.S.C. §103(a), Claims 1, 4, 7, and 10 have been amended to incorporate the features of Claim 14, with Claim 14 consequently canceled. Applicants respectfully traverse the rejection of Claim 14 under 35 U.S.C. § 103(a) with respect to amended independent Claims 1, 4, 7, and 10.

Claim 1 recites, *inter alia*, allocating a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, wherein an owner of said certain connection is a requesting terminal which is a terminal of said ad-hoc network or said central

¹ The changes to Claims 1, 4, 7, and 10 are supported at least by original Claim 14.

controller, and the predetermined amount of bandwidth is allocated based on a fixed capacity allocation. Claim 1 has been amended to recite that ***the predetermined amount of bandwidth is allocated based on a fixed capacity allocation***. The other independent claims have been amended similarly. This claimed feature advantageously provides a quality of service to the certain connection based on the **fixed capacity allocation** (FCA), as described in a non-limiting embodiment on page 7, lines 1-35 of the specification. Thus, the quality of service required by the certain connection is not affected by freeing some amount of the allocated bandwidth, because the allocation itself is fixed.

The outstanding Office Action asserts on page 9 that the '430 publication describes that the allocated predetermined amount of bandwidth is allocated based on fixed capacity allocation in Figure 4B step 406 or Figure 4A step 402.

Applicants respectfully disagree, and submit that neither Figures 4-B, nor the associated text describes **how** bandwidth is allocated. Figure 4A step 402 states "[a]llocate bandwidth between a plurality of queues." This description merely states that bandwidth is allocated, but does not explain **how** the bandwidth is allocated. That fact that bandwidth is **somehow allocated** does not anticipate or render obvious the specific way in which bandwidth is allocated, namely the ***fixed capacity allocation*** recited in Claim 1. As mentioned above, using ***fixed capacity allocation*** provides specific advantages with respect to Quality of Service, while the '430 publication does not mention Quality of Service. Therefore, the '430 publication fails to teach or suggest that ***the predetermined amount of bandwidth is allocated based on a fixed capacity allocation***.

Accordingly, Applicants respectfully submit that amended Claims 1, 4, 7, and 10 patentably define over the '430 publication.

Further, Applicants respectfully submit, and indeed the outstanding Office Action does not assert otherwise, that neither the '999 patent nor the '933 publication teach or

suggest the feature of *the predetermined amount of bandwidth being allocated based on a fixed capacity allocation*, as recited in amended Claims 1, 4, 7, and 10.

As none of the cited references individually teaches or suggests the feature of *the predetermined amount of bandwidth is allocated based on a fixed capacity allocation*, any proper combination of the cited references fails to teach or suggest this feature.²

Accordingly, Applicants respectfully submit that Claims 1, 4, 7, and 10 (and all associated dependent claims) patentably define any proper combination of the '999 patent, the '430 publication, and the '933 publication.

In addition, Applicants respectfully submit that Claims 1 and 7 (and all associated dependent claims) patentably define over any proper combination of the cited references, because the references fail to teach or suggest *immediately returning* as much of the freed bandwidth as required so that said new needed amount of bandwidth is available to said owner, as recited in Claims 1 and 7.

The outstanding Office Action asserts on page 10, lines 1-8, that the '430 publication describes "borrowing," and that a person of ordinary skill in the art would recognize that borrowing implies an intention of returning. Further, the outstanding Office Action apparently asserts³ that the implied intention to return borrowed bandwidth is the same as *immediately* returning borrowed bandwidth.

Applicants respectfully submit that the mere intention of returning borrowed bandwidth **does not specify the timing** of the return. For example, the borrowed bandwidth could be returned after **all data packets** waiting to be transmitted by the "borrower" are transmitted, *immediately* when the "lender" indicates that it needs the bandwidth, or in many other possible timing schemes. The '430 publication **does not describe at what time** the

² MPEP 706.02(j) (stating that in a 103 rejection, "the prior art reference (or references when combined) must teach or suggest **all the claim limitations** [emphasis added]").

³ Outstanding Office Action, page 10, lines 7-8, ("...the steps performed by Lodha are the same regardless of the terminology used.").

borrowed bandwidth is returned. Thus, even if it is implied that borrowed bandwidth is **eventually** returned, this implication does not teach or suggest *immediately returning as much of the freed bandwidth as required so that said new needed amount of bandwidth is available to said owner*, as recited in Claims 1 and 7.

Applicants respectfully submit, and indeed the outstanding Office Action does not assert otherwise, that neither the '999 patent nor the '933 publication teach or suggest the immediate return of freed bandwidth as recited in Claims 1 and 7. Accordingly, Applicants respectfully submit that Claims 1 and 7 patentably define over any proper combination of the cited references.

Finally, Applicants respectfully traverse the rejection of Claim 15 under 35 U.S.C. § 103(a). Claim 15 recites that *the freed bandwidth is re-allocated in a next transmission frame*. The outstanding Office Action asserts that this feature is described in Figure 4B, step 408 of the '430 publication.

Applicants respectfully disagree, and submit that step 408 of Figure 4B illustrates a step in a flowchart with the caption:

"Allow a second queue to forward packets using the unused allocated bandwidth if a borrow vector associated with the second queue indicates that the second queue is permitted to use bandwidth allocated to the first queue."

Applicants respectfully submit that the cited step is silent regarding a **transmission frame**, and therefore fails to teach or suggest that *the freed bandwidth is re-allocated in a next transmission frame*, as recited in Claim 15. Further, Applicant's respectfully submit, and indeed the outstanding Office Action does not assert otherwise, that the that neither the '999 patent nor the '933 publication teach or suggest the feature of *the freed bandwidth re-allocated in a next transmission frame*. Therefore, Applicants respectfully submit that Claim 15 patentably defines over any proper combination of the cited references.

Accordingly, Applicants respectfully request that the rejections of Claims 1-13 and 15 under 35 U.S.C. §103(a) be withdrawn.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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